



# the OUTRIGGER

R. Baker & Son Magazine  
*Disabled Veteran Founded*

September 2010

## R. Baker & Son News Flash: NY Construction Magazine / McGraw-Hill Construction Has Announced Their 2010 Top Specialty Contractors... R. Baker & Son is #1

### R. Baker & Son was named #1 Demolition / Wrecking Contractor in NY, NJ and CT.

Throughout all market sectors, we ranked #13 in Top Specialty Contractors in NJ and #50 in NY. We are extremely proud of these accomplishments, which were achieved through the constant innovation, professionalism and hard work of our employees. Our sincere thanks go to the R. Baker & Son Team. [read more](#)

### ASSISTING CUSTOMERS WITH PRECISION DIS-ASSEMBLY & RE-ASSEMBLY by: Dave Baker

With precision dis-assembly and re-assembly, many details need to be taken into consideration. If equipment is to be relocated, it must be pre-determined where equipment will be split, and into how many sections, to properly prepare for packaging and transport. Every movement and opening – elevators, doorways, windows, roof openings, etc. – must be plotted, because the smallest opening is always a primary concern.

When factory testing of complex interconnected equipment is required, you should consider having the same layout at the FAT (factory acceptance test) as you have in your facility. This allows you to ship and reuse all piping, wiring, flex hoses and all other equipment connections rather than do it twice. This can save considerable time, money and effort for your project.

If existing equipment is being relocated, this is the ideal time to replace defective parts, gasketing, and old or worn items. Involving the factory is a big plus, and you might even be able to have the manufacturer agree to extend their warranty. *cont. on page 2*



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## Precision Dis-Assembly and Re-Assembly : *cont. from page 1*

**Packaging of equipment is very important.** The manufacturer must dis-assemble equipment and package all parts properly, clearly identifying each for re-assembly at the new location. If equipment is to be shipped by sea or air, proper packaging is necessary to prevention moisture intrusion, which is a concern that is more common than you might think. All fluids, media and product materials must be removed immediately after factory testing is complete before equipment is shipped. A quality contractor can ensure that all of these important steps are taken.

We recommend that, when dealing with large, complex equipment, customers should have a factory-trained tech provide basic consultation on how the equipment was packaged, how it should be assembled, and whether there are any specific steps that should be taken during or following assembly. Also, manufacturers sometimes require a factory tech to witness and document certain steps during assembly. Though factory consultation might add to your project costs, it is money well spent. Having to take equipment apart later because something simple was missed at assembly can be an expensive show-stopper.

If you have chosen wisely, your contractor will do far more than just rigging your equipment into place when it arrives on site. Whether installing new or relocating existing equipment, they should be fully knowledgeable on every project detail, asking all the right questions, and can assemble all of your systems – piping, electrical, controls, compressed air, nitrogen, hydraulics, etc. – to startup readiness.

Make sure your contractor has plenty of related experience, with expert mechanics and millwrights, and can guide you through the complex process from start to finish. Whether you are installing pharmaceutical modules, lyophilizers, equipment trains, tanks, generators, chillers, boilers, green technology, or even a large piece of art, your contractor should be your quality partner for success.



Congratulations to R. Baker & Son's most recent Quality Award winner: **BRYAN SIMOES**

The Award Program has been established to recognize individuals who have contributed to R. Baker & Son's growth and success for their outstanding achievements in safety, project execution and customer satisfaction above and beyond the call of duty.

## SHUT IT DOWN, LOCK IT OUT...CHECK IT!

**Just as PPE items such as hard hats, safety glasses, and proper work shoes are elementary standards on the job, effective lockout / tagout practices are critical elements in the shared safety process.**

Many large corporations and quality contractors implement excellent lockout/tagout programs that protect workers when the unexpected happens. According to OSHA, these practices prevent an estimated 120 fatalities and 50,000 injuries each year. However, it is just as important to properly follow through to the next step after the valve has been closed, the breaker locked, or the switch opened. Workers must check to make sure the system is de-energized and that any possible moving parts are properly chocked to prevent movement of fans, hydraulic presses, etc. Many electrical systems have power and control power feeds which both must be turned off.

The reality is that lockout/tagout might not always be foolproof, and many systems in the field – piping, electrical, etc. – are sometimes improperly marked, or not marked at all. There have been a few recent incidents reported around the country where the wrong valve or breaker was turned off, or energy was not properly checked. Thankfully no one was seriously injured, but these incidents serve an important reminder that the most important step in the lockout/tagout process often occurs after the fact: making sure it's OFF.



## INDUSTRY BUZZ: The Empire State Building

One of the most incredible feats of construction of the 20th century is the Empire State Building in New York City. Completed in 1931, the 103-story, 1,454 ft. tall Art Deco skyscraper stood as the world's tallest building for more than 40 years, and it still defines the iconic New York skyline today.

In 1930, when the project began, developers were engaged in a fierce competition in for the coveted title of "world's tallest building", and the building was designed and constructed at breakneck speed. Designer William F. Lamb was able to produce drawings for the project in just two weeks, and general contractor Starrett Brothers & Eken completed construction in only fourteen months time, at the rate of about 4.5 floors a week. The official opening took place on May 1, 1931. Total cost for the entire project: just under \$41 million.



**Construction of the skyscraper was a marvel of efficiency.** Production, transport and construction were choreographed to a science. Steel girders produced in Pittsburgh, PA were erected and riveted in as little as 80 hours from the time they rolled from the furnaces. Roughly 10 million bricks and 200,000 cubic feet of Indiana limestone were used. More than 3,400 workers, including hundreds of Mohawk Indian ironworkers, took part in the project.

The Empire State Building is currently undergoing a \$550 million renovation that includes replacement of all 6,500 windows. The upgraded windows are projected to save more than \$400,000 annually in energy costs. Photographs by Lewis Wickes Hine, who documented the building's construction and offered a glimpse into the lives of the workers, are shown above, and you can view more of his amazing photos [here](#).

### New NYC Building Safety

**Lewis Hine's stunning photos shown above depict steelworkers performing dangerous work at dizzying heights, sans any safety equipment.**

NYC construction safety has come a long way in the 80 years since then, enforcing some of the strictest codes, regulations, and licensing requirements in the world. R. Baker & Son performs a substantial amount of demolition in NYC and its surrounding boroughs, and recently we received our NYC Buildings Safety Registration, a new city requirement for construction organizations performing larger-scale projects. R. Baker & Son is committed to maintaining the very highest standards of safety and our performance continually exceeds government and industry regulations and standards.